

#### EDITORIAL.

Christmas comes but once a year, and would you believe that it's that time again? 1977 seems to have just flown by, and I have the distinct feeling that I did not see it go.

Lack of material has made Journal late, and caused us to miss an issue.

The power strike in Victoria has helped to make us even later with the July-September Journal.

I trust you are well on your way with your entries for the Association's competitions. Entries close with the Federal Secretary at the end of January.

On hehalf of the Federal Committee, I would wish you all a Happy and Holy Christmas and a prosperous New Year.

REX LITTLE.

Cover Photo.
4219 & 4905 double head an "Up" freight through Bathurst Yard in December 1969.
Photo Alan Templeman.

## JOURNAL BOX

10/77 Issue 126 Volume 26 Contents 130 N.S.W. Branch Exhibition '77 138 St Eric's (Model)Railway System Developing Ideas - Part D Wittennoon Gorge R.R. 140 Modelling in card - Building a 150 Box Car The Three-Point Track Gauge 153 Branch Notes 154 155 News from other Clubs 156 Pop Valve

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#### Credits.

Rex Little, Editor P.O. Box 46, Nunawading, Vic., 3131 Maurie McKinnon, Publisher 26 Bondi Avenue Frankston, Vic. 3199. Bill Morehouse Artwork Cover Design Sentinel-Times Dot Treseder Typing Sentinel Times Publishing Printing 8 Radovik St. Korumburra, Vic. 3950. Norm Read Federal Secretary

3 Augusta St. Strathfield, N.S.W. 2135. Federal Treasurer Keith Wilcox

reasurer Keith Wilcox 12 Sulivan St

Blacktown, N.S.W. 2148. Federal Registrar June Dunn

> 26 Napoleon St Rosebery, N.S.W. 2108.

Advertising Manager Stuart Westerman 10 Gardenia Cres. Cheltenham, Vic. 3191.

#### A.M.R.A. N.S.W. BRANCH

## 15th Exhibition - 1977

Australia's Premier Model Railway Exhibition.

#### Stand No.

- 1. Australian Railway Historical Society. Historical Displays and publications.
- 1A. Australian Model Railway Association - information stand for your railway modelling queries.



2. Northern Model Railway Society. "N" scale layout of Wallan Station,





3. W.J. & W. Webb.

Fleishmann & Marklin model railway display & layout.



4. Fuel & Water Stop for refreshments to
keep you going.

5. Southern Cross Model
Railway Association operating "N" scale
South Australian
prototype layout.





6. Australian Model
Railroad Magazine. Australia's own popular
magazine for the
railway modeller.



7. Strathfield-Burwood
Model Railway Club. Operating "N" gauge
free- lance American
layout.

8. Platform 3. Display of Model
railway equipment
& hobby supplies.





 N.S.W. Rail Transport Museum Photographs, exhibits and publications of railway interest.



11. Zig Zag Railway Co-op Ltd. Photographs & publications of the "Great Zig Zag".

13. Kevin Brown.

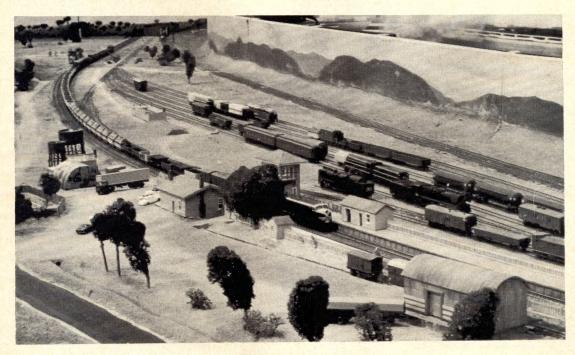
Double track N.S.W. Blue Mountains scenery HO layout:

10. Roderick Caldecott
Operating
Hornby Dublo
sceniced mainline
layout.





12. Australian Model
Craft Co.
Model Railway
display - (1) How
to do it (2) what to do it with.



Northern Model Railway Society.

Winner of Best Layout Award.

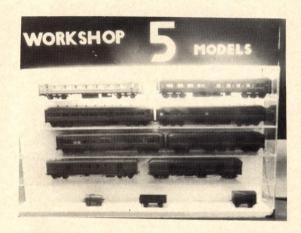


Kevin Brown. Winner of most popular layout award.



14. Colin Everitt. L.G.B. extensive mainline Gauge 1 layout.

15. North Shore Railway Modellers Association. - Point-to-point layout featuring N.S.W. prototype.



17. Workshop 5 Models.

Display of loco & rolling stock kits and models.



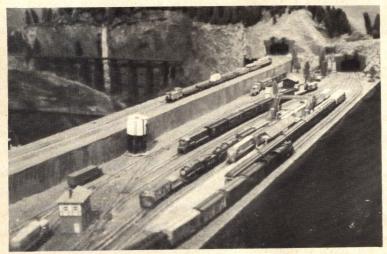
16. The Fantastic
Modelshops of 42 Park
St. and Angel Arcade,
Sydney and Westfield
Shoppingtown Liver pool.
Famous brands of Model
railways.



18. E. Mullet.
"TT" gauge operating layout.

STAND 13 AGAIN





19. Sydney N Gauge Model
Railway Club Double
track American
prototype layout.

Winner of Vic Branch Certificate.



21. Sydney Society of Model Engineers Display of model live steam locos, radio cont. cars, boats & planes.

- 20. Alice's Hobby Shop Model railway equipment & hobby supplies.
- 22. Punchbowl Hobby Centre. HO & N gauge Model Railway accessories and HO layout.



Last, but certainly not least important, The Kitchen.

Thank you - we hope you enjoyed the Exhibition. See you again next year.

BUT

Please check the venue for 1978 Exhibition.

### THE ST. ERICS MODEL RAILWAY SYSTEM

By Eric G. Watson.

#### **DEVELOPING IDEAS**—

Many layouts are superb in craftsmanship and artistic merit. Yet they are antiseptic, and dead as a door nail - and not even a cemetery to least show what has happened to every-Deserted streets, stations and shops. Empty paddocks, empty rolling stock - not even a stray dog. ness and factories that must be bankrupt, no signs of any activity or cus-Roads empty of vehicles. tomers. Railways exist to serve Unreal man! places and people, to transport people from place to place, at one time to make a profit - to-day it seems to get subsidies.

I think that putting reality into the system must be a long term project for suitable items can be scarce and expensive. Yet here again, some thought and effort can cut costs considerably.

Take rural scenery, 3 sheep \$1.60, a cow 95 cents, - that's expensive. A 100 piece farm set for \$3.10 (3.1 cents an item) that's cheap. The house in this one isn't too good - but I used a similar one by putting it in a corner with a screen of trees around it. It looked OK then. Cars, trucks, forklifts etc, one shop was up to \$4.00 for some. Hobby and toy shops generally around 89 cents. Chain stores 65-89 cents. One chain store had some very useful ones at 54-59 cents each.

The same with an idea for a town, three sides of a square, lawns and garden, with a war memorial, and a couple of cannon. Most places wanted up to \$5.00 and yet suitable ones were found in a chain store for \$1.00. That gave me the idea for the war museum. Lots of tanks, planes and odds and ends to go around the building, reasonable at \$1.00 to \$1.25. I can

afford to buy one every couple of weeks at this price.

Peco have quite a range of items suitable for loading, putting around factories and stations at about \$1.60 each. The dump-master at work frequently provides odd items. If one was to purchase enough at these prices to do a 30 square foot layout - it would be quite a layout.

Suitable figures are scarce - and I think overpriced at \$1.75 upwards. So far I haven't found a cheaper source, and so I am just getting some very occasionally, but they are spreading One source of some very useful figures though is the cheaper packets of farm sets - at about 95¢ each at some chain stores. One, for example, had a farm girl with her arm out. pony fitted under nicely. One has a farmer with a walking stick and gun. Put a dog alongside and he is standing inspecting his flock. Another, a chap with a hoe. Just the thing for some action in a house garden.

Some scrap material taped inside windows in houses is another good idea. Good plastic fencing is scarce and expensive, so save it for front fences etc. Railway line fences, farm fences etc can be put in quickly and cheaply using "Cordex" garden twine or "Millers Cord Wrap".

Drive 1" nails into the loose board, say 2" apart, (check for train clearances). Start one end, take a wrap around each post, at the far end take a couple of wraps around and work back.

If the post is not upright, or the wire sags a bit, or it is out of alignment slightly - leave it. That's real.

Later when I put a few pictures in articles, you will notice there are no

roads, - cars etc have already parked after coming in off the (non-existing) roads!! Still each business and shop has some parked cars, trucks, buses, etc, and as I purchase them suitable figures are added. Odds and ends are put into the trucks for loading. It all adds reality - and brings the layout to life.

What I do is take every opportunity to look around shops of all sorts for suitable items, but compare prices and purchase the cheapest <u>suitable</u> items I can find, - that is I do not buy trash.

At the same time I look for other items, perhaps not needed now, but possibly of future use.

For example, some years back there was available a good range of Western (U.S.A. bad man days) type buildings. They could have been quite useful on a layout, but were a bit out of scale for HO/OO. The idea occurs that they could be adopted for a Historic Park, so I will be looking around for them.

Every so often I get my catalogues out, and just for the exercise pick out odd buildings and work out how I could convert them to some other use, thus building up a range of ideas to draw on. This comes in handy. called one set listed in Kilbri. It took some finding, as it's the back cover. Now I studied it, 15 buildings "Wild West" style. I cannot tell if they go together as 5 groups or 15 seperate buildings. change some of the name plates, check various reference works, perhaps take a trip to Moe to see what some of the buildings would be best used for, work in a few Pola kits, such as a B 804 station with a bit of track, an old engine and a couple of bits of suitable rolling stock. B802 should be useful for something like a Stock Agents, B803 for a country pub. A few Faller items appeal also.

So gradually the idea forms and is developed. Perhaps it will never be

used, perhaps it is a project to be financed and built over two years. The more I think of it, the more I like it.

Yes; while many I know go around whinging from one years end to another getting nowhere, I look at these ideas and ask "How can I develop the idea so that I can put it on my layout?" I also carefully consider how using the idea will effect the immediate area, and the layout as a whole.

Not much skill is required, only some thought and imagination. The end result may not be anywhere near the magnificent scenery on some layouts, but it is what I can do and enjoy doing.

If you ARE short of ideas, I can supply you with a beauty - a 396 square foot layout on a 330 square foot baseboard!! That's a specialist version though. How about a 196 squarefoot layout on a 330 square foot baseboard? The "New Type Model Railway".

Oddly enough this is possible, and the principles are quite simple. It would take about 2-3 Journal pages to write it up sufficiently to show you how it works out. It is a long term project, you just add as you want to any time you want to, and it doesn't matter if you never finish.

The first idea mentioned is a 30 year project, the second say 20 years.

Yet I wonder how many would be prepared to study a few short articles, try the ideas out and get to understand them, then develop the project for themselves from an outline?

I don't know whether it is worth while, or would an idea like this that rests on learning one simple skill be too hard, or no good because there is now about 400 or more ideas written up to go on? What do you think?

By the way IT CAN BE DONE.

\*\*\*\*\*\*\*

# WITTENNOOM GEORGE RAILWAY by JOHN YOURN.

If the love of Model Railroading is in your soul, it will one day "out". In my case I was 40 years of age and married with two children, before finally, after living in three houses, I was in a position, both house-wise and money-wise, to commence on my life long dream.

When I was about ten, I recall as if yesterday, viewing a wealthy neighbour's clockwork Hornby layout. At the age of twelve, Dad finally bought me an electric Hornby 4-4-2 Great Western Locomotive. Shortly after came an even greater thrill - a Lionel Union Pacific Streamliner, complete with whistle. A 15'x 8' disused garage was given over to me and I really had fun.

However the usual school boy deficiencies, money and general know-how prevented me from achieving all that I wished.

Then came the 1939-45 war and after 5 years away, I returned and in order to gain money to buy a car and land, my railroad was sold at a good profit because new articles were just not available. I knew however that one day as General MacArthur had said, "I shall return." Around 1962, an old army friend talked me into joining the Australian Model Railway Association, and shortly after this, another friend loaned me Bill McClanahan's "Scenery for Model Railroads" and that was "it". At last I knew what I wanted.

Shortly after this, we bought a new smaller house, and I talked my wife into building an outside rumpus room size 40' x 16'. Down at one end, behind the bar (yes, I admit it was more than a rumpus room for the children) was an area 10' x 16' reserved for the future train room and work bench.

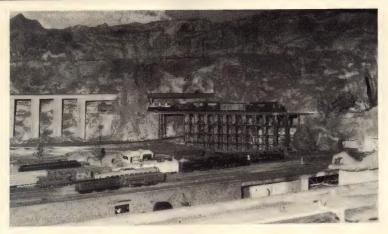
I quickly learned that equipment and techniques had changed very greatly over 25 years and I really needed guidance from the local experts. Great confusion arose in my brain from listening to many and varied opinions on what best to do in "HO" scale in 10' x 16'. Consequently, an extra 6' was added to the rumpus room which gave me an area of 16' x 16'. Figure 1 shows the layout which was built in this area.

By that stage, I had joined the local sub-branch of A.M.R.A. and had developed a strong admiration and, I hope, a life-long friendship with one of the sub-branch members, Allan Dowel.

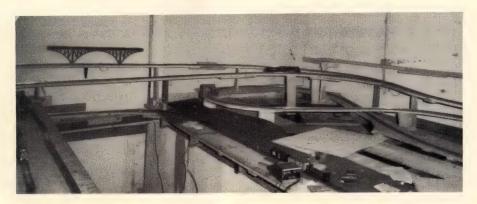
He was the editor of the club magazine and experienced in Model Railroad wiring and planning in particular. After many hours of discussions, he straightened me out. He convinced me that my main interest lay in spectacular scenic effects. By then, being a regular reader of "Model Railroader", I had become a great fan of John Allen - operations didn't greatly interest me, only scenery. Dowel was patient and understanding, and without his advice and help, I hate to think of the hopeless mess I would have been in.

It was fortunate that I had ready access to compressed Particle Board offcuts and the whole layout was designed on the "L" girder system (many thanks to Mr.Westcott and "Model Railroader").

Linn Westcott's articles on Hard Shell and Zip texturing came out about this time, and this method I have followed faithfully, except that all my base work is done on 2" mesh bird wire, gained mainly from rubbish tips. Hydrocal was most difficult to locate here, but was finally found in Sydney.



Dowel Town.



Early stages - Dowel Town.



Looking over Dowel Town.

I was fortunate in meeting Charles S. Small, well known in M.R. for most amusing articles over the years. He was in Melbourne, and told me where to locate the product. However at \$5.00 per 40 lb bag, I stalled. After investigations and experiments, I settled on Cornice Adhesive at \$1.80 per 401b bag.

I usually make up batches of approximately 2 cups of water to 4 cups of this plaster and use industrial type paper towelling. Further texturing is done later, followed by dye-spraying and zip texturing.

I would dearly have loved to lay my own track and turnouts, but I wanted quick results, and settled on Peco track and Shinohara points, all laid on 1/8" plastic foam. This gave beautifully silent running, but this was later lost when I commenced ballasting.

Now let me take you to 1967. track work, basic scenery and wiring was complete. I was able to relax a little, spend more time with my fam-It was not long before I began ily. to tire of watching trains running through scenery, although it was quite a good show. Something was lacking and again I consulted my friend Allan He convinced me that once I introduced some prototypical operation, my interest would never tire again. Tactful questions to my wife gained me permission to extend, and this gave me an area of 46' x 16' to more or less do with as I wished. I did promise however, to leave space for a table-tennis table (curses)!

Having learned one lesson, this time I placed myself entirely at Allan Dowel's mercy --- I would do anything he suggested in order to change a decorative toy into a real medium sized club type layout, that would also be suitable for a one man operation.

Allan came up with some tremendous ideas, and supplied the full electrical circuitary. We managed to produce a

plan, which would convert my "round and round" two station layout into a point to point layout for real railroad operations, without destroying my previous efforts, and still retain all of the original facilities. The extensions are shown in figure 2, which should be joined to figure 1 at point "X".

Yes, all I had to do to the original layout was to add a turnout at one place. This particular arrangement retained the longer run from Doweltown to Ayer's Rock for point to point operation, whilst the shorter route between these stations would be used only for continuous "display" type running as originally planned. the most accessible route between the old and new sections was across the bar (and to destroy the bar would take that certain something out of club operation!) the track had to be installed at a level much too high for an operable station. However, scenery being still my main motivating force, I turned this to an advantage by creating a huge mountain with spiral descent to the terminal, Port Hedland.

The minor through station, Wittennoom Gorge, is on the face of this mountain, and quite accessible.

High in the mountains above Ayer's rock lies the "infamous" Sin City. This old mining town is the last remaining link with the past. The town has not moved with the times, and many buildings dating back to the 1800's The population still still remain. enjoys life in the raw --- gambling saloons and every form of vice flour-The town and its six ishes here. churches is "run" by a graft ridden Sherrif, Felon Fowel and his Henchmen. All are well known members of the M.M.R. Society, which is reported to be a sub-branch of the Mafia.

The high level track which branches off near Doweltown, goes into a continous line with a reverse loop at Sin City. One day soon, I hope to have



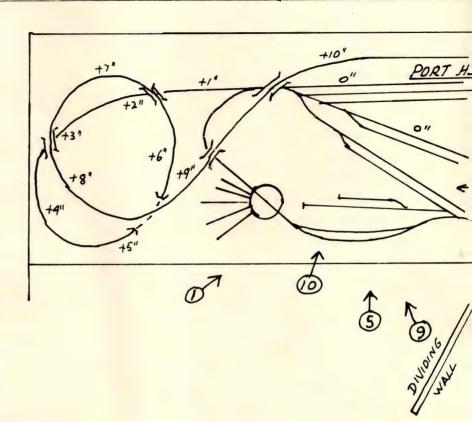
Pop up hole behind Dowel Town.



Girder bridges between Dowel Town and Ayres Rock.



Goods yards Port Hedland.

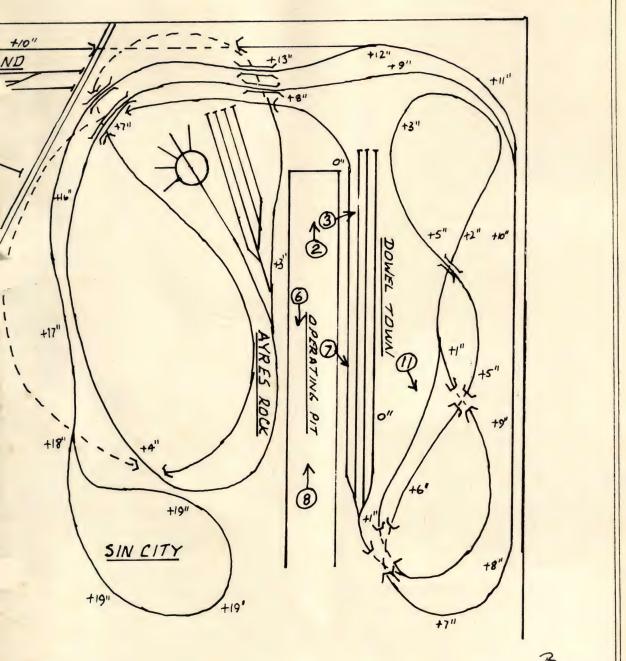


### WHITNOOM GORGE R.R.

PLAN NOT TO SCALE.

Traced from Skatch by John Yourn

NUMBERS IN CIRCLE SHOW DIRECTION OF PHOTOGRAPHS



B1/17

two trains operating on A.T.C. up here (6'6" from floor level, but only 5'0" from operating aisle floor). I consider that this separate track will be most useful for running display trains for those unavoidable "pests", pardon, guests, who bring their five year olds along to see Mr. Yourn's "toy train track". They usually arrive when for some reason or other running is inconvenient on the main lines. However I had better stop building bigger and better mountains and learn to operate the darn thing. My nine year old son and my younger friends do a much better job on the control panels than I do.

It was fortunate that I had two month's long service leave, and as a result, the extensions took shape very quickly. Here I was grateful to accept the help of a 16 year old friend, Ron Bennell, who spent many weeks working on the wiring. Without his help and Allan's, I fear that many moons would pass before trains would be running on the new section.

Once again, after laying track, I went straight on to the scenic effects. Basic scenery, to me, is pure pleasure, and rapid basic effects I find easy to achieve. Progress is now slowing down as I add the finer detailing and structures.

One of my biggest problems has been, and still is, the final settling of prototype. Like many other Australians, the colourful personality of American Railroads is a big draw. I have a rather mixed bag of equipment but am gradually settling down to a mixture of Athearn and Tenshodo, mainly in the road names of Southern Pacific and Santa Fe.

The road name of Wittenoom Gorge comes from a mining town in the booming northern part of Western Australia. Originally, the mine produced Blue Asbestos. This mine has since closed down, but the recent discovery of iron ore nearby, has again opened up the

area. Now a real railroad is being built which terminates at Port Hedland. From this port millions of tons of new found iron ore will be shipped, mainly to Japan. My story (and I'm sticking to it) is that the Australian Company purchased surplus equipment from S.P. and A.T. and S.F. at a very reasonable cost and that is why I am operating American equipment "down under".

In many ways I have been lucky in the purchase of equipment. I quickly learned that Kadee couplings appeared to be the ultimate and that N.M.R.A. standards are necessary for operation. Consequently, my only purchases, almost from the start, have not required modifications and I cannot stress too strongly to any beginner, that he should join a club and take heed of what the old-timers have learned, before rushing in to purchase all the attractive items available without a firm plan. This applies particularly to Australia, of course, as there is a great mixture of track and wheel standards on the market, of Japanese, American, English and Continental origin.

Much of the control panel equipment used by myself and others in Australia has come from surplus disposal equipment. Telephone key switches are often aveilable at about 20 cents and relays for 50 cents each. For point switch motors I used P.M.G. registers.

(They record the number of telephone calls made). They are a single coil job which operates on 12 volts and slight modifications enable switching of power to the frog. There are 60 odd points in my layout. The motor costs about 15 cents each - I just could not have afforded commercial motors at about \$1.50 each.

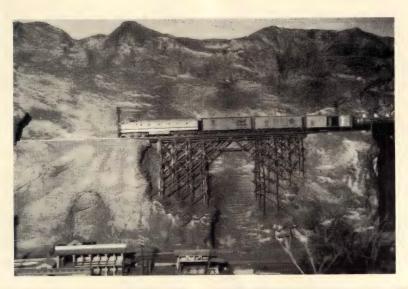
The layout has four twin cab panels
- two in each area. The panels at
both Wittenoom and Doweltown have
access to the main arrival roads at
adjacent stations. Thus an operator



Pop up hole behind Ayres Rock.



Goods yards at Port Hedland.



Looking into Port Hedland.

at Wittenoom can start a train at Doweltown and drive it through Wittenoom to port Hedland. Breaking up or assembling at Port Hedland must be carried out by using the panel at the station. Likewise, an operator at Doweltown can start a train at Wittenoom and drive it to Ayer's Rock, with similar local arrangements for detailed operations at Ayer's Rock.

a wall between Whilst there is Wittenoom and Ayer's Rock, telegraph keys and bells are installed between these two stations, and the starting signals from them are interlocked to This works out prevent the obvious. quite well in practice, as the control panels are used in such a way trains are started "blind", but are stopped in sight of the operator. "Train Departure" telegraph codes not sent until starting signal shows A time table is in course of preparation and this will be used as "normal time" - we like to have a cup of coffee or a chat between trains.

I have occasionally suggested to Allan that I knock down the wall behind the bar, so that the whole area can be viewed at one time. He does not agree and I'm finally convinced that there is some extra excitement, when we have a club meeting, in relying on a telegraph key and block instruments to control trains on this section, particularly as it is a prototype system of safe working which of course is quite independent of visual assistance. Where do I go from here?

Frankly I want to go on and on. want to have something like John Allen unless we However, has achieved. move, I cannot go any bigger in area, and, frankly, I do not think that I could go through all that five years In any case, I of hard work again. was told early in the game, that if you go too big, maintenance can take the pleasure out of the hobby and little time is left for operational fun.

How right the old-timers are! I'm already learning this particular lesson and think I'll now stop extending and perfect what I already have. Anyway, it's a wonderful hobby, and my eternal gratitude goes to chaps like McClanahan, Westcott, Allen and locally, Dowel and Bennell and Stephen Small (another future John Allen). Also, to many other good friends, for their inspiration and help in making Wittenoom Gorge R.R. a reality.

This article was originally written some years ago, and the prices quoted are not current prices. Since then John has moved house, and the accompanying photographs were taken just before the axe fell on the layout.

\*\*\*\*\*\*\* Editor

### **N-K HOBBIES**

\* \* \*

For an ever-increasing range of model railway and hobby supplies

\* \* \*

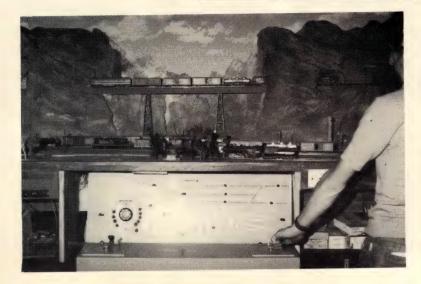
264 BLACKBURN ROAD, SYNDAL 2332398



Mountains above Port Hedland.

Looking towards
Port Hedland.





Panel at
Port Hedland.

# MODELLING IN CARD BUILDING A BOX CAR

BY CEDRIC ROLFE.

The principles of building a box car, no matter what prototype we choose, are much the same for any material we may choose to use. I use card for the reasons I mentioned in my previous article, therefore I will proceed using this particular medium.

It is assumed that we will not be satisfied with only one vehicle, anyhow it is just as easy to mark out five or six as it is to mark out one. I always find that I get at least one failure, either due to rank stupidity or carelessness, so you see that it is a good idea to have something in reserve. If you are so good that you do not make mistakes, and you have a couple over, then you can always swop or sell them.

I have chosen as my prototype the N.S.W.G.R. MRC, because with the one marking out we can have either a MRC, MBC, MFO, MB, plus the one and only GRC, (using very slight alterations).

Study the outline drawing carefully. The dimensions are given in feet and inches, so on a sheet of paper divided into suitable columns, write down in

the first column such things as overall length, length of body, width of body, height of sides, and so on. In the next column write down the prototype measurements, and in the third column the actual measurements in your scale. I model in 3½mm/foot, but the principles used can be applied to any scale as the third column gives you the real measurement. Example: Width of body - 9'0" - 31.5 mm.

A word of warning hore. Never made

A word of warning here - Never measure from a scale drawing, use the measurements as worked out on your details sheet.

Obtain a sheet of white art card as used in primary schools, decide on the number of models you intend to make, cut a piece of suitable size and mount it on your drawing board, and mark out as shown in Fig. 1. You will notice that this allows for six models to be made, and shows first half of one side, the other end, and finally the second half of the first side. Notice also that each body piece is a reasonable distance from the one above. This is most important as will be noted later on.

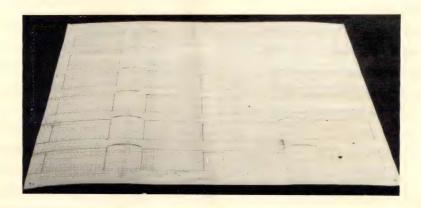


Fig. 1.

Proceed now to scribe the sides and ends, omitting the doorways. This can be done in one continuous line from top to bottom or vice versa. For this use a 6H pencil, which will make the scribing sufficiently deep without appearing to be overdone. This is the drawback when modelling with scribed basswood. The grooves appear to be about half an inch wide and three inches deep, making the model appear coarse & unattractive. As soon as the scribing has been completed, cut out each body, leaving at least a quarter of an inch to spare along the bottom of each strip. Fig. 2.

Scribe these doors, and mark out on each the necessary hinges and door catches. These doors must be drawn in a similar manner to Fig. 1, except that the whole side must be included and the ends omitted. The remainder of the sides do not need to be scribed, and will equal the inside measurement of the card at each end. From a piece of heavy card, such as used in mounting, cut out pieces to suit each end. In this case allowing for the two thicknesses of card on each side.

Set these pieces aside, and return to the bodies as described in Fig. 2.,



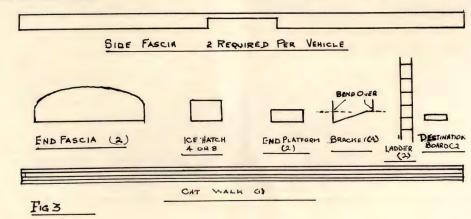
Fig..2.

Proceed now to mark out on a separate piece of card, fascias for each side and end for every model you intend to make. Always allow for the extra width or length as the case may be. These fascias must be left plain, not scribed,

Now draw the double doors for each vehicle, as listed below: M.R.C. 5'0" x 6'6", M.B.C.  $5'0\frac{1}{2}$ " x 6'6", M.F.C.  $5'0\frac{1}{2}$ " x 6'6", M.B.  $5'0\frac{1}{2}$ " x  $6'8\frac{1}{2}$ ", and G.R.C. 5'0" x 6'6" as well as the narrow 2'0" wide door at each side of one end.

and very carefully bend as shown in Fig. 4. When this is done, place again on your cutting board and very carefully cut out the half doors at each end (which is actually the centre of one side) and the double door which is at the centre of each strip. Do not cut below the bottom of each side, but leave that extra quarter of an inch previously mentioned.

Cut out the inner sides on which the doors have been drawn, glue one piece in position on the complete side,



and glue a second piece in position on one half of the other side. Set aside to dry. If you are using Aquadhere or Graspall, this should take about \$\frac{1}{2}\$ hour. As soon as the glue has set carefully remove the extra \$\frac{1}{2}\$" along the bottom of the strip, and finish glueing the other side, then glue into position the reinforcing at each end.

Using more mounting card, mark and cut out further reinforcing for the sides, but allow an extra the bottom which will be incorporated in the underframes, and glue in place. Now fit and glue the fascias at the ends and sides.

The floor should now be carefully cut to shape from some strong material, (1/8" fineline chipboard or masonite is ideal). Glue into position after care fully marking the centres for the bogies and the couplers.

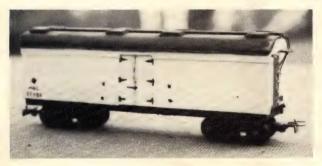
At this stage, spacers should be cut and fitted to the model, and the whole given a coat of aeroplane dope, inside and out, after which the buffer beams, ladders, platform brackets, and grab irons should be fitted.

Now carefully shape and fit the roof using a piece of balsa, which is strong and light, so as to avoid the model being top heavy. This, in turn, is covered with either a piece of black art card or heavy photographic paper

This should slightly overlap the model at the sides and ends. To simulate the beading on the prototype, I use heavy linen thread and glue it in place beginning part way along one side, following the whole way round, and finishing neatly at the starting point.

From heavy card, cut out the catwalk and roof hatches as required, (the G.R.C. does not have catwalks, hatches, or platforms) and glue in place. At the same time fit the end platforms.

Make the locking bars and rods for each door from fine strong wire, fit (glue) the hinges for the doors, and the model is ready for painting. Fit rivetted bogies and the couplers of your choice, and your model should look something like Fig. 5 or Fig. 6.



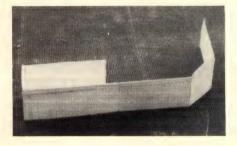


Fig. 4.

Fig. 5.

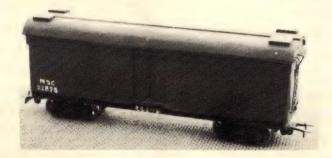


Fig. 6.

# The Three-point Track Gauge

By BRUCE NORTON.

DF = radius of curve

CF = EF =  $\frac{1}{2}$  x track gauge

BE = AE =  $\frac{1}{2}$  x base length of three

point gauge.

BG = increase in gauge

From the right angle triangle BDE

ED = EF + DF

and

BD =  $\sqrt{\text{ED}^2 + \text{EB}^2}$ BG = BD - ED

or combined

BG =  $\sqrt{(\text{EF} + \text{DF})^2 + \text{EB}^2}$  - (EF + DF)

Example

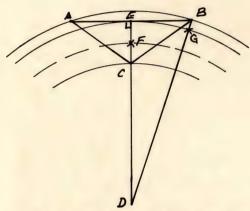
For 16.5 mm gauge track and 900 mm radius curve:

From A.M.R.A.standards, fourth edition 1970, dimensions of three point track gauge are:

EC = 16.5 mm  
AB = 35 mm  
EF = 
$$\frac{16.5}{2}$$
 = 8.25 mm  
BE =  $\frac{35}{2}$  = 17.5 mm  
DF = 900 mm  
BG =  $\sqrt{(8.25 + 900)^2 + (17.5)^2}$  -  $(8.25 + 900)$   
=  $\frac{0.17 \text{ mm}}{0.168577800}$  (rounded off from 0.168577800)

i.e. gauge is increased to 16.67 mm.

For DF = 600 mm  
BG = 
$$\sqrt{(8.25 + 600)^2 + (17.5)^2}$$
 - (8.25 + 600)  
= 0.25 mm (0.251694700)



EXAGGERATED DIMENSIONS

The figures in brackets are included only to serve as a check for others making these calculations to greater than two decimal places, which is pointless anyway.

Calculating the increase in gauge for other gauges is as simple as finding the three point gauge dimensions and the radius of desired curve.

Errors on page 9, A.M.R.A. Standards, 4th Edition 1970:

For XP in 7/8" gauge the metric equivalent should be 22.2 mm.

For YZ in 1 ½" gauge, the imperial equivalent should be 2.205".

For YZ in 7/8" gauge, the imperial equivalent should be 1.772"

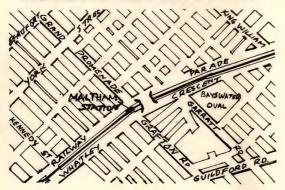
For YZ in 16.5 mm gauge, the imperial equivalent should be 1.378", and for 16.5 mm gauge an o.3 mm increase represents a 20.1" radius curve not 24" as shown in the table.

Calculations, rounding off and conversions were performed on a HP 45 calculator.

\*\*\*\*\*\*\*\*

## BRANCH NOTES

#### WESTERN AUSTRALIAN BRANCH NOTES



The Branch meets at Meltham Station, on the first Monday of each month, at 8.00 p.m., and at other times as indicated on your program in the "Branch Line". Visitors and prospective members of A.M.R.A. are always welcome at any of our meetings. For further information, contact the Secretary, Mr. Terry Watts, 49 Kenney Street, Bassendean, phone 25 5555 (work).

Our move to Meltham Station took place on 23rd and 24th July. Thank you very much all those who assisted in the move. The buildings need plenty of work done on the interiors, most of this will now have to wait until after the exhibition. A number of work days/nights will be in the forth-coming program.

At the moment, the longest room has been set up as the meeting room, with the N gauge layout in the adjoining-room which used to be the signal cabin.

The old waiting room at the moment has the HO/OO layout with the other rooms used for the storage of junk - of which we have a great deal.

Already the placing of the layout, the "For Sale" cupboard, the notice

board, the library and the tea making facilities all in the one big room have had a beneficial effect on the Branch, as it seems to have promoted greater mixing of the members, leading to a greater exchange of ideas and generally speaking, more fellowship, which is what the whole concept of A.M.R.A. is all about.

Any member interested in borrowing any of the over 800 publications now in the club library should contact the Branch Librarian, Simon Mead, at any meeting.

Some recent additions to the club's library stock are listed below:
Aust.Model Railroad Magazine Ju/Aug 77 Trains - Jan 77 and Feb 77.
Railway Modeller Jul 77.
Rail Classics - Jan 75.

#### Christmas Social Evening.

The Committee would like to have a Christmas function along the lines of past years, but the venue is a problem.

The Committee would like to hear your views on this, and also, suggestions of a venue. Further details of the date, venue, and the type of function will be placed on the notice board in early December.

#### Program.

November.

Mon. 7th Weathering of locos & rolling stock by Stan Andrews.

Sat. 12th Work on club rooms.

Wed. 16th General club activities (see Note 1).

Mon. 21st New HO layout discussion.

Sat. 26th General club activities.

Wed. 30th General club activities.

December.
Mon. 5th Auction (see Note 2).
Sat. 10th General club activities.

Wed. 14th Keith Featherstone recalls. (see Note 3).

Mon. 19th General club astivities.

Wed. 28th General club activities.

#### Meeting times:

Evening 8 p.m. Mondays & Wednesdays. Afternoon 2 p.m. Saturdays.

#### Program Notes.

#### Note 1.

On these meetings, the N gauge layout can be used, the library will be available and the "For Sale" cupboard will be open, and of course there will be other members to talk to, so join in.

#### Note 2.

A pre-Christmas Auction. Bring along your unwanted goods and/or cash. The Branch will take 10% commission on all sales. If you have anything to sell, please try and get it to the rooms on the 30th Nov. to save time on the night. This auction is open to all not just A.M.R.A. Members.

#### Note 3.

Keith has many informative and humerous stories to tell, from his days as a steam locomotive driver both on the Southern Region of the B.R. and on the Zambian Railways - should be a night to remember.

GRAHAM WATSON.
Branch Reporter

#### QUEENSLAND.

The host of our July meeting was John Hill. Following the discussion of Branch business, we were shown some excellent slides of South African Railways. A combined meeting with SCMRA was the venue for August, where, at Arthur Robinson's home, a slide competition was held in conjunction with this meeting. The slide competition included a range of questions on railway systems from all over the world. An enjoyable night was had by all who attended.

Steve Suggitt was the host for our September meeting. Steve has a fine

rolling collection of scratch built stock in S & SN 32" gauges. Many prototypes are represented from Queensland and New South Wales and prototypes from overseas systems. Steve gave us an insight on different construction methods on building a loco enjoyed All who attended chassis. night and learnt something on construction of a loco.

As the festive season approaches may I take this opportunity to wish all AMRA members and their families a Merry Christmas and a Prosperous New Year.

NEIL JOHNMAN

Branch Reporter

#### NEWS FROM OTHER CLUBS.

#### PROSPECT MODEL RAILWAY CLUB.

After a very successful exhibition held in the Senior Citizens Hall at Blacktown over the Queen's Birthday-Weekend in June, we are now hard at work again applying the final touches to the club's extentions, as well as getting our layout ready for the AMRA Exhibition in October.

As a result of our A.G.M. on the 25th June 1977 the following office-bearers were elected:

President: B. Payk
Secretary: G. Archer
Treasurer: P. McDonnell

Committeemen: B. Gornall, C. Riley.

Our President, on his "Expense Account", recently escorted those members' wives, without whose assistance our Exhibition would not have been the success it was, to a night out at the "Black Stump" Restaurant at Blacktown. An enjoyable night was had by all that were present.

Members are looking forward to outings at Loftus and the Children's Christmas party at Waratah Park. Both promise to be good family days for all.

Any information regarding the Club can be obtained from B. Payk on 623 1855.

C. RILEY.

Publicity Officer.



The Editor, AMRA Journal.

Dear Sir,

I read with interest the letter by Jim Fainges in your last issue and his comments on the value of A.M.R.A. to the country member.

I feel that country members do get less from A.M.R.A. than do city members, but surely if all or most of the associations funds were channelled into the State Branches they would get even less. State Branches must centre their activities in the capital cities and are really only used fully by a small number of A.M.R.A. in those centres. This in no way detracts from the excellent job that these branches do, and I think that members in the metropolitan areas who don't use their State Branches are the losers.

However A.M.R.A. has always been an Australia-wide organization, and an independent publication such as the Journal is a vital facet of the assocoation's services to it's members. broadsheet of club doings as suggested would not answer to our needs as it is possible that A.M.R.A policies might not co-incide with those of the publishers of the A.M.R.M. as has happened on several occasions. About twenty years ago, the Australian Railway Historical Society tried this approach and combined their newsletter with a railfan publication called Railways in Australia. The experiment was not a success due to practical difficulties and to the differing philosophies of the two organizations.

The format and content of our Journal do not worry me personally, but I would like a larger magazine more often. This probably means that the Editor needs more material and here we can all help. Would it be possible for a

rather more detailed description to be published of the layouts shown at our Exhibitions? Especially could the Journal publish track plans as well as photographs so that members who can't get to these exhibitions could get some idea of the Trains running and the theme behind these exhibits.

By adhering to a policy of being a Federal body A.M.R.A. has built itself into the largest model railway organization that has even existed in this country and the Journal has played a major part in this growth. So let us hope that the Federal Committee will continue to improve and expand the Journal and that members in general will make our hardpressed Editor's task easier by forwarding to him articles suitable for publication.

RICHARD GUTTERIDGE.

#### 

Dear Sir,

Jim Fainges raises one important point in his letter in the May -June issue, about the other Australian model railway magazine - the A.M.R.M. Magazine, published (as I see from an old copy) by the Southern Cross Model Railway Association Inc.

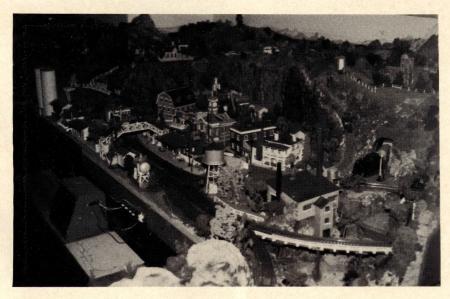
Australia is too small to maintain more than one magazine effectively, so why not some sort of amalgamation of those we now have. It could involve a few complications with a sharing of costs, membership and work, but as well as making a better magazine, some thing approaching the English "Railway Modeller," or the American "Model Railway," it should also provide some savings, particularly in distribution.

Could you publish the pros and cons of amalgamation? I've an idea you did some years ago, but things have changed since then.

For the present the Journal suits me fine, and I've seen it improve over the years, with the photography now particularly good. I enclose three

photos of my own layout, (H.O.), but being no photographer, they may not suit. If it's of any use, here is a quick account of the layout.

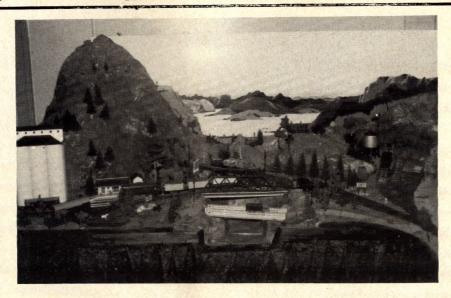
It started about ten years ago, with a 6' by 3'6", and I crammed as much as I could into that space. The result was a minimum radius of 15"



1. Original 6' x 3'6" layout.



2. Original 6' x 3'6" layout.



3. Second 6' x 3' layout.

that often got below that. So now it's nothing less than 18".

At present, the layout uses most of a 13 ft x 11 ft. lounge, and includes the original 6' x 3'6". It has two moveable sections, both fitted with bridges. (The next extension will carry two lines through the wall, and into a spare room, in which there will be a mountain section and a wharf.)

In one corner is a 3' diam. circle hidden beneath a town, so that I can reverse a train from either direction Single track, with three hidden storage tracks and a number of spurs. Three stations, the largest with a goods yard giving storage for four trains, - but unfortunately too small.

I tried point motors for switching, but after burning out a few, I now use beneath board rods for distant points, and fingers for anything close to the edge.

Scenery is made of piles of caneite and some of paper towels dipped in a solution of gyprock, draped over anything to give the right shape. Coloured with oxides (used for colouring cement) yellow, green and black, red, brown and mixed. Also dust on a

50-50 gyprock oxide mix onto watersprayed scenery. Rocks and quarries are cork floats broken up.

Some buildings are commercial, but most are made from the cardboard used to cut stencils, glued with Selleys Handi-grip, and painted with commercial paint. Aquadhere is used to glue down coloured sawdust (dyed with clothing dyes), or commercial grasses, or ballast.

Trees are partly commercial, and partly made from either twigs, or odd bits of electrical cable spread out, touched with glue, and then dipped in shredded foam rubber. Background scenes are partly painted, (the small tins of gloss paint again,) but recently I've used items cut from magazines and particularly calendars, - there's some really good ones. If you collect enough then you can pick out those that are right for colours and size. Joins can be covered by trees.

Rivarossi couplings are used, and I've tried magnetic uncoupling, using the magnetic plastic used to close refrigerator doors, (which is a bit weak,) or the magnets from cupboard catches.

And I used smoke from

mosquito coils to drift out of factory chimneys, which is quite life-like.

It's a layout that just developed as I got spare time, (I'm an orchardist,) and although it operates well, I get most satisfaction from making it life-like, rather than from time-table running or automatic working.

FRED SIVITER.

\*\*\*\*\*

Dear Sir,

Although trivial I consider that page nine of A.M.R.A. Standards, fourth edition - 1970, contains some small errors. These are mainly due to conversions between imperial and metric and vice versa, but there are also errors in the calculation of increase in gauge resulting from the use of the three point track gauge. The equation by E. Snowden is correct but is in a difficult to use form. The statement with the equation is correct.

I have endeavoured to present what I think is an easier way to calculate the gauge increase by simple mathematicis.

I would like to think that the standards when brought for the fifth edition are checked and corrected if necessary.

I send these corections to you as I do not know of a person or committee responsible for such.

BRUCE NORTON.

\*\*\*\*\*\*

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